

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**LISTING OF CLAIMS:**

Claims 1-31. (Canceled)

Claim 32. (Currently Amended) A composition consisting of a recombinant modified Ankara (MVA) vector into which ~~are~~ is inserted DNA sequences coding for (i) the early E6 polypeptide of a papillomavirus; (ii) the early E7 polypeptide of a papillomavirus; (iii) the late L1 polypeptide of a papillomavirus; and (iv) the late L2 polypeptide of a papillomavirus; each of said DNA sequences being placed under the control of independent elements necessary for its expression in a host cell or organism; wherein said recombinant MVA vector is provided in combination with a pharmaceutically acceptable carrier.

Claims 33-35. (Canceled)

Claim 36. (Previously Presented) The composition of claim 32, wherein said elements necessary for the expression of the DNA sequences comprise a promoter selected

from the group consisting of the promoters of the thymidine kinase (TK), 7.5K, H5R and K1L genes.

Claim 37. (Canceled)

Claim 38. (Currently Amended) The composition of claim 32, wherein said recombinant vector is a MVA strain vector and wherein said DNA sequences are inserted into at least one of the excision region selected from the I, II, III, IV, V and VI excision regions of said viral vector.

Claim 39. (Canceled)

Claim 40. (Currently Amended) The composition of claim 32, wherein said E6 ~~and~~ or E7 or both E6 and E7 polypeptides are nononcogenic variants of the native E6 and E7 polypeptides of a papillomavirus,

wherein said nononcogenic variant of the E6 polypeptide is the native HPV-16 E6 polypeptide deleted of amino acids; and

wherein said nononcogenic variant of the E7 polypeptide is the native HPV-16 E7 polypeptide deleted of amino acids 21-26.

Claims 41-43. (Canceled)

Claim 44. (Currently Amended) A composition consisting of a recombinant modified Ankara (MVA) vector into which ~~are~~ is inserted DNA sequences coding for (i) the early E6 polypeptide of a papillomavirus; (ii) the early E7 polypeptide of a papillomavirus; (iii) the late L1 polypeptide of a papillomavirus; and (iv) the late L2 polypeptide of a papillomavirus; and (v) a polypeptide having an immunostimulatory activity;

wherein each of said DNA sequences is placed under the control of the independent elements necessary for its expression in a host cell or organism and wherein said polypeptide having an immunostimulatory activity is selected from the group consisting of interleukin-2, interleukin-7, the co-adhesion molecule B7.1 and the co-adhesion molecule B7.2; and

wherein said recombinant MVA vector is provided in combination with a pharmaceutically acceptable carrier.

Claim 45. (Canceled)

Claim 46. (Previously Presented) The composition of claim 44, wherein the polypeptide having an immunostimulatory activity is interleukin-2.

Claim 47. (Previously Presented) The composition of claim 44, wherein the polypeptide having an immunostimulatory activity is the co-adhesion molecule B7.1.

Claim 48. (Previously Presented) The composition of claim 44, consisting of one recombinant vector into which is inserted:

- (a) a DNA sequence coding for the E6 polypeptide of a papillomavirus, a DNA sequence coding for the E7 polypeptide of a papillomavirus, a DNA sequence coding for the L1 polypeptide of a papillomavirus, a DNA sequence coding for the L2 polypeptide of a papillomavirus and a DNA sequence coding for the co-adhesion molecule B7.1, or
- (b) a DNA sequence coding for the E6 polypeptide of a papillomavirus, a DNA sequence coding for the E7 polypeptide of a papillomavirus, a DNA sequence coding for the L1 polypeptide of a papillomavirus, a DNA sequence coding for the L2 polypeptide of a papillomavirus and a DNA sequence coding for interleukin-2.

Claim 49. (Currently Amended) The composition of claim 48, wherein said E6 ~~and~~ or E7 or both E6 and E7 polypeptides are, respectively, nononcogenic variants of the native E6 and E7 polypeptides of a human papillomavirus,

wherein said nononcogenic variant of the E6 polypeptide is the native HPV-16 E6 polypeptide deleted of amino acids; and

wherein said nononcogenic variant of the E7 polypeptide is the native HPV-16 E7 polypeptide deleted of amino acids 21-26.

Claims 50-52. (Canceled)

Claim 53. (Previously Presented) A method for the treatment or prevention of dysplasia or cancer of the neck of the uterus, comprising administering an effective amount of the composition of claim 32 to a patient in need of such treatment.

Claim 54. (Previously Presented) A method for the treatment or prevention of a papillomavirus infection, comprising administering an effective amount of the composition of claim 32 to a patient in need of such treatment.

Claim 55. (Previously Presented) A method for the treatment or prevention of dysplasia or cancer of the neck of the uterus, comprising administering an effective amount of the composition of claim 44 to a patient in need of such treatment.

Claim 56. (Previously Presented) A method for the treatment or prevention of a papillomavirus infection, comprising administering an effective amount of the composition of claim 44 to a patient in need of such treatment.

Claims 57-61. (Canceled)

Claim 62. (Previously Presented) The composition of claim 44, wherein said elements necessary for the expression of the DNA sequences comprise a promoter selected from the group consisting of the promoters of the thymidine kinase (TK), 7.5K, H5R and K1L genes.

Claim 63. (Canceled)

Claim 64. (Previously Presented) The composition of claim 44, wherein said recombinant vector is a MVA strain and wherein said DNA sequences are inserted into at least one of the excision region selected from the I, II, III, IV, V and VI excision regions of said viral vector.

Claim 65. (Currently Amended) A composition consisting of a recombinant modified Ankara (MVA) vector into which ~~are~~ is inserted DNA sequences coding for (i) the E6 polypeptide of a papillomavirus(ii) the E7 polypeptide of a papillomavirus and (iii) a polypeptide having an immunostimulatory activity; each of said DNA sequences being placed under the control of ~~the~~ independent elements necessary for its expression in a host cell or organism and wherein said polypeptide having an immunostimulatory activity is selected from the group consisting of interleukin-2, interleukin-7, the co-adhesion molecule B7.1 and the co-adhesion molecule B7.2; and

wherein said recombinant MVA vector is provided in combination with a pharmaceutically acceptable carrier.

Claims 66-68. (Canceled)

Claim 69. (Previously Presented) The composition of claim 65, wherein said elements necessary for the expression of the DNA sequences comprise a promoter selected from the group consisting of the promoters of the thymidine kinase (TK), 7.5K, H5R and K1L genes.

Claim 70. (Canceled)

Claim 71. (Previously Presented) The composition of claim 65, wherein said recombinant vector is a MVA strain and wherein said DNA sequences are inserted into at least one of the excision region selected from the I, II, III, IV, V and VI excision regions of said viral vector.

Claim 72. (Previously Presented) The composition of claim 65, wherein the polypeptide having an immunostimulatory activity is interleukin-2.

Claim 74. (Currently Amended) The composition of claim 65, consisting of one recombinant ~~vaccinia virus from the Copenhagen or MVA strain~~ vector into which is inserted a DNA sequence coding for the E6 polypeptide of HPV-16, a DNA sequence coding for the HPV-16 E7 polypeptide and a DNA sequence coding for interleukin-2.

Claim 75. (Currently Amended) The composition of claim 65, wherein said E6 ~~and or~~ or both E6 and E7 polypeptides are, respectively, nononcogenic variants of the native E6 and E7 polypeptides of a human papillomavirus,

wherein said nononcogenic variant of the E6 polypeptide is the native HPV-16 E6 polypeptide deleted of amino acids 111-115, and

wherein said nononcogenic variant of the E7 polypeptide is the native HPV-16 E7 polypeptide deleted of amino acids 21-26.

Claims 76-78. (Canceled)

Claim 79. (Previously Presented) A method for the treatment or prevention of dysplasia or cancer of the neck of the uterus, comprising administering an effective amount of the composition of claim 65 to a patient in need of such treatment.



Claim 80. (Previously Presented) A method for the treatment or prevention of a papillomavirus infection, comprising administering an effective amount of the composition of claim 65 to a patient in need of such treatment.